INFORMATION CENTRAL INTELLIGENCE AGENCY This material contains information affecting the National Defense of the United States within the meaning of the Espionage Laws, Title 18, U.S.C. Secs. 793 and 794, the transmission or revelation of which in any manner to an unauthorized person is prohibited by law. S-E-C-R-E-T 25X1 **REPORT** COUNTRY Hungary April 1957 DATE DISTR. Hungarian SUBJECT 25X1 Valve Plant, Budapest NO. PAGES REQUIREMENT NO. RD REFERENCES DATE OF INFO. SOURCE EVALUATIONS ARE DEFINITIVE. APPRAISAL OF CONTENT IS TENTATIVE two reports on the Hungarian Valve Plant (formerly The reports contain, among other items, Philips) two drawings of the three-kilowatt and five-kilowatt valves produced in the plant; three sketches of the layout of the plant (ground floor; second and b. third floor; general plan); a reportorial description of the sketches as to workshops, offices, etc.; the work performed there; labor force; names of officials, and the duties assigned to them. 25X1 S-E-C-R-E-T 25X1 X ARMY X NAVY X AIR X FBI STATE (Note: Washington distribution indicated by "X"; Field distribution by "#".) INFORMAT

Sanitized Copy Approved for Release 2010/04/08: CIA-RDP80T00246A033700100001-6

· ·		, ef	A		è	20. N
,	S emine		Produce	ing copy	,	
					NR	2
F () F	MATI	ON REPORT IN	I F O R M A T	ION RE	PORT	Ì
	MATI	CENTRAL INTELLIGEN				
This materi	al contains infor	metion effecting the National Defense of the Un	ited States within the me	eaning of the Espionag	ge Laws, Title	
18, U.S.C. S	ecs. 793 and 794,	the transmission or revelation of which in an	y manner to an unautho	orized person is prohi	bited by law.	
		S-E-C-R-E-T			2	5X1
ILITOV	U		REPORT			
JNTRY	Hungary	How sout on	DATE DISTR.	3 April 195	7 2	5X1
JECT	Valve Pla	Hungarian ant, Budapest		5 - 7	•	•
مسترسم			NO. PAGES REQUIREMENT	1	. 2	:5X1
			NO.	RD		(III)
E OF			REFERENCES	D1) #	= 127 1	#
CE & E ACQ.				The		UU 25X
	Philips)	two in Budapest. The reports of	reports on the contain, among o	Hungarian Valv	e Plant (form	ner]
	Philips) a. b.	in Budapest. The reports of two drawings of the three-ki in the plant; three sketches of the layout	contain, among o	ther items,	res produced	nerl
	a.	in Budapest. The reports of two drawings of the three-ki in the plant;	contain, among of lowatt and five to the plant (ther items, -kilowatt valv ground floor; s to workshops	res produced second and second and second and second and second and second and second areas second areas second areas second and second areas second	to.
	a.	in Budapest. The reports of two drawings of the three-ki in the plant; three sketches of the layout third floor; general plan); a reportorial description of the work performed there; la	contain, among of lowatt and five to the plant (ther items, -kilowatt valv ground floor; s to workshops	res produced second and second and second and second and second and second and second areas second areas second areas second and second areas second	(1) to:
	a.	in Budapest. The reports of two drawings of the three-ki in the plant; three sketches of the layout third floor; general plan); a reportorial description of the work performed there; la	contain, among of lowatt and five to the plant (ther items, -kilowatt valv ground floor; s to workshops	res produced second and second and second and second and second and second and second areas second areas second areas second and second areas second	(1) to:
	a.	in Budapest. The reports of two drawings of the three-ki in the plant; three sketches of the layout third floor; general plan); a reportorial description of the work performed there; la	contain, among of lowatt and five to the plant (ther items, -kilowatt valv ground floor; s to workshops	res produced second and second and the dut	(1) to:
	a.	in Budapest. The reports of two drawings of the three-ki in the plant; three sketches of the layout third floor; general plan); a reportorial description of the work performed there; la	contain, among of lowatt and five to the plant (ther items, -kilowatt valv ground floor; s to workshops	res produced second and second and the dut	to.;
	a.	in Budapest. The reports of two drawings of the three-ki in the plant; three sketches of the layout third floor; general plan); a reportorial description of the work performed there; la	contain, among of lowatt and five to the plant (ther items, -kilowatt valv ground floor; s to workshops	res produced second and second and the dut	to.;
	a.	in Budapest. The reports of two drawings of the three-ki in the plant; three sketches of the layout third floor; general plan); a reportorial description of the work performed there; la	contain, among of lowatt and five to the plant (ther items, -kilowatt valv ground floor; s to workshops	res produced second and second and the dut	to.;
	a.	in Budapest. The reports of two drawings of the three-ki in the plant; three sketches of the layout third floor; general plan); a reportorial description of the work performed there; la	contain, among of lowatt and five to the plant (ther items, -kilowatt valv ground floor; s to workshops	res produced second and second and the dut	to.;
	a.	in Budapest. The reports of two drawings of the three-ki in the plant; three sketches of the layout third floor; general plan); a reportorial description of the work performed there; la	contain, among of lowatt and five to the plant (ther items, -kilowatt valv ground floor; s to workshops	res produced second and second and the dut	to.;
	a.	in Budapest. The reports of two drawings of the three-ki in the plant; three sketches of the layout third floor; general plan); a reportorial description of the work performed there; la	contain, among of lowatt and five to the plant (ther items, -kilowatt valv ground floor; s to workshops	res produced second and second and the dut	to.;
	a.	in Budapest. The reports of two drawings of the three-ki in the plant; three sketches of the layout third floor; general plan); a reportorial description of the work performed there; la	contain, among of lowatt and five to the plant (ther items, -kilowatt valv ground floor; s to workshops	res produced second and second and the dut	tc.;
	a.	in Budapest. The reports of two drawings of the three-ki in the plant; three sketches of the layout third floor; general plan); a reportorial description of the work performed there; la assigned to them.	contain, among of lowatt and five to the plant (ther items, -kilowatt valv ground floor; s to workshops	res produced second and second and the dut	tc.;
	a.	in Budapest. The reports of two drawings of the three-ki in the plant; three sketches of the layout third floor; general plan); a reportorial description of the work performed there; la	contain, among of lowatt and five to the plant (ther items, -kilowatt valv ground floor; s to workshops	res produced second and second and the dut	tc.;
NTE 2	a. b. c.	in Budapest. The reports of two drawings of the three-ki in the plant; three sketches of the layout third floor; general plan); a reportorial description of the work performed there; la assigned to them.	contain, among of lowatt and five to the plant (ther items, -kilowatt valv ground floor; s to workshops	res produced second and second and the dut	tc.;

SEGRET

HUNGARY

25X1

SCIENTIFIC/ECONOMIC

Plans of the MAGYAR ADOGSOGYAR Electric Plant BUDAPEST

- 1. Attached are drawings showing the layout of buildings, offices and workshops of the MAGYAR ADOCSOGYAR electrical plant, BUDAPEST (formerly PHILLIPS).
- 2. Also attached is a key indicating the work carried out in each room or workshop.
- The original factory consisted (1931) of that part which extends from rooms 5 and 6 (on the ground floor) and up to the present staff entrance at 35. In/1934, a separate block was built (rooms 1 and 2) but this was joined to the main building in 1935 by the addition of rooms 3 and 4.
- 4. In the years 1942 45, extensions to the factory were made to the east and northeast of the staff entrance as far as the present trade entra ce. This work was not properly finished until 1948.
- 5. A new block, two storeys high was started in 1950 from the trade entrance and extending out to the north and west. This work is only now being drawn to a close.
- 6. Of the other buildings:

A was built in 1943 - 44 (replacing an earlier timber construction)

в " " 1954.

C " 1 1956

D " " 1947 - 48

E " 1931

7. The head of this factory, on the technical side, was GARAY Laszlo and his deputy was SARRETTI Jozsef. On the administrative side, the head was ERMER Arpad and his deputy was KLEMENOVICS Jozsef. ERMER was theoretically but not actually, the head of the whole factory.

Secret

•••/••• 25X1 - 2 -

GROUND FLOOR

25X1

25X1

1. Chemical research laboratory, under the dir	ection of TOMASEK
Zoltan, a chemical engineer	This laboratory was 25X
known as HIKI II (i.e. HIRADAS TECHNIKAI INTEZET	- Communications
technical institute). HIKI I and III etc. were	situated in other
factories. TOMASEK had two assistants, one of	whom was TALLOSNE
f.n.u., a woman	25X1

- 2. The office used by TOMASEK.
- 3. M.E.O. (MUNKAT ELLENÖRSÖ OSTALY = Work control office). This office checked the quality of the products made in rooms 5, 6 and 7. There were two or three inspectors here including MAROS, Lajos

He also had an office in room 44 on the first floor.

- 4. Corridor, stairs and W.C.
- 5. Tool-shop, producing tools used in the factory. Eight or ten men worked here.
- 6. Fitters and welders. Six men.
- 7. Workshop employing 25 men and producing components of valves (cooling systems, anodes, fernicos etc.). LASKO Jozsef was in charge of this room as well as 5 and 6. Under him in room 7 worked PAPP Belo (foreman) and CSAMO (Sandor?).
- 8. Pumping room, in which air was extracted from the valves (sizes .5 KW to 20 KW and all types of mercury valves). The machines used were Hungarian patented High Frequency machines. This was an older part of the building, but did the same work as was done in room 25, (but the machines in the latter room were of a different type).
- 9. Changing rooms, W.C.s wash-rooms etc.
- 10. Store room for tools.
- 11. A workshop where machines were made to help in the process of valve manufacture. Instead of putting the job out to contract, it was often decided to make the necessary machine or apparatus on the spot. Here was made part of the apparatus for extracting air from thorium tubes, although the actual pumps were obtained elsewhere. HOMITS, Gyula was in charge of this section.

SICOFT

25X1

	é rea e r		25/(1
	SEGRET	•	
Ļ_	4		

- 12. In this room, machinery used in the factory was given periodical overhaul, and attention was given to machines which were giving less than their proper performance. It did not deal with actual breakdowns of machinery this was done by a team of men in room 26. KERESZTES, (Lajos?) was in charge of room 12 and had ten men under him.
- 13. This room housed the generating plant which supplied electric current (D/C only) for machinery in room 8 and elsewhere in the factory. It also housed aircompressors and High Frequency heating apparatus (10,000 period) in room 34 on the first floor. Four men worked in room 13.
- 14. Gatekeepers' office (with four or five persons) including an internal telephone exchange (14.a)
- 15. Room containing heating apparatus for purifying metals.
- 16. Ante-room.
- 17. Glass technicians room. Two persons worked here; one was NAGY Oszkar.
 - 18. Here was housed some of the air-extracting plant used in the research department. (Two women worked here).
 - 19. More air-extracting apparatus, but larger and more powerful. Four people worked here, including EREKI, Vilmos and MAKO, Zoltan (both qualified engineers,
 - 20. This was a workshop producing components for the research section and a storeroom for the parts produced. DARIDA Istvan was the foreman; he had 3 men working for him.
- 21. This was the office used by research technologists including Dr.)

 XKONCZ, Istvan, a doctor of chemistry. He was in charge of the research sections, which included rooms 1, 2, 15 21. KONCZ came only twice a week to the factory as he was in charge of the chemical research laboratory at BUDAPEST University. Room 21 was also used by the other engineers (EREKI, MAKOS etc).
 - 22. Production manager's office: SZASZ, Laszlo
 - 23. Sales office or commercial section: TARCZON, Laszlo, assisted by one person.

SEGRET

- Li -

- 24. Material requirements office: manager was CZUG, Emil, assisted by a mainly female staff.
- 25. Pumping room, employing 25 people.
- 25a. Wired-off section containing vacuum pumps for the production of valves from 0.5 KW 160 KW.
- 25b. As 25a, but not wired off.
- 25c. Wired-off section containing pumps for the production of mercury valves.
- 25d. Benches for testing and measuring performances of large valves.
- 25e. Benches for testing and measuring performances of small valves.
- N.B. Valves were kept in this room for ten days, after which they were given another examination prior to packing.
- 26. Office and workshop used by a breakdown repair service of 8 or 10 men. The foreman was BETTENBUCH Miklos (cf room 12).
- 27. Packing room (2 3 persons).
- 28.) Darkrooms for X-ray photography of valve interiors. This operation
- 29.) could be carried out either before or after the extraction of air, but was normally done after.
- 30. W.C.
- 31. Washroom and Bathroom.
- 32. Changing room.
- 33. Corridor.
- 34. Trade entrance (not used by the staff).
- 35. Main entrance (the only one used by the staff).
- 36. Main gate (for lorries etc.)

FIRST FLOOR

- 1. Drawing office preparing plans for use mainly in room 11 on the ground floor. There were 8 10 men here under SIGMOND, Janos, a qualified engineer.
- 2. Room used for the storing and reproduction of plans. Here worked X HEINGINGER, Jozsef and SZEDLACSEK Mihaly (Senior) whose son worked in room 11 on the same floor.

, 2FEEF

-- 5 --

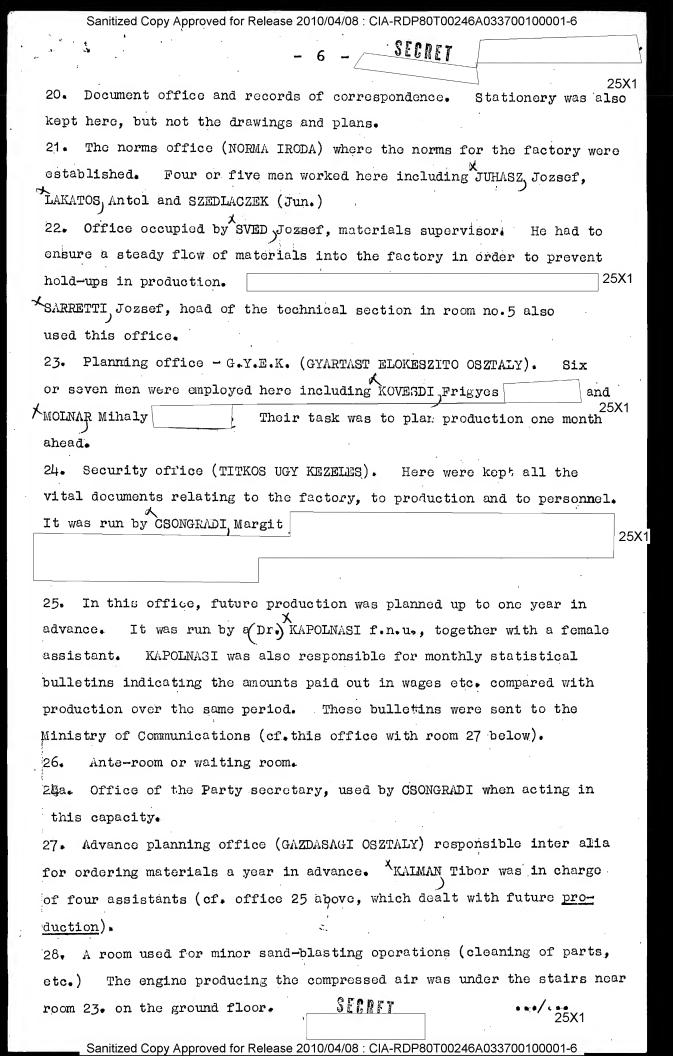
- 4. A room used for the training of glass technologists. There
 were normally about 12 students here, under MINICH, Gybrgy (himself a
 skilled technician,
- 5. Technical section, studying the processes and materials involved in the manufacture of valves (e.g. method of air-extraction, suitability of metals etc). The man in charge here was SARRETTI, Jozsef, with a deputy BERENYI, Janos. Eleven other men worked here.
- 6. Workshop for the production of "dwarf tubes" (TORPE CSÖ i.e. indicator lamps, neon lamps). In charge was CSABO Karoly, with 20-25 men under him.
- 7. Sports room.
- 8. Component store-room for room 6 (1 person).
- 9. Culture room.
- 10. Staff superintendent appointed by the Party. This post was occupied by a Mrs RAJNAINE assisted by a Secretary. RAJNAINE was not under the orders of the factory and may not have been paid by them. Her task was to supervise the political activities of the employees (cf below, the role of KOVESDI Jozsefne).
- 11. Labour office. This was run by SZEDLACZEK Mihaly (Junior) who acted as the factory's representative in all questions of pay, grievances, etc.
- 12. Workers' representative UZEMI BIZOTTSAG TITKAR, appointed and paid by the Workers' Union Central organisation. This man was FEHER Lajos, who also organised production competitions.
- 13. Petty cash office for incidental expenses (not wages).
- 14. Factory manager, ERMER, Arpad.
- 15. Ante-room for ERMER's office, and office for his secretary.
- 16. Factor chief engineer's office (GARAY Laszlo).

25X1

- 17. Clerks, 17 18 in number. KLEMANOVICS Jozsef was the chief
- 18.) clerk.
- 19. Pay office where wages were paid out.

SEGHET

.../...



- 29. Workshop producing small components for tubes. 10 or 12 men worked here.
- 30. Office used by VAGO, Bela and his two deputies SZEPVOLGY, Miklos and BATORFI Geza. VAGO was in charge of the work done in rooms 28 37 (less rooms 31 33).
 - 31. X-ray room (developing and processing).
 - 32. X-ray room (with apparatus running at 150,000 volts).
 - 33. Instrument room for the apparatus in room 32.
 - 34. Workshop for producing small valve-components and also for heating components (for purification of metals).
 - 35. Assembly room for large valves (6 men).
 - 36. Ditto (also 6 men).
 - 37. Room containing an electric stove for heat-purifying components (The store was fitted with hydrogen to prevent oxidisation). One man only worked here.
 - 38. Chemical cleansing room.
 - 39. Room for the cataphorisation (?KATAPHORIZATOR) (? CIRKONIZALAS) of various metals.
 - 40. Room for electro-plating with nickel, copper and silver the various small prevision parts of the valves.
- 41. Room for polishing tungsten (wolfram) with electricity. A(Mrs.)

 * SZAKAL Jozsefne was in charge of seven workers here, but both she and the others also worked in rooms 38, 39 and 40.
 - 42. M.E.O. (similar to that in room 3 on the ground floor) for checking the products of the workshops on the first floor.
 - 43. Components store room.
 - 44. Office used by the head of the M.E.O., (MAROS Lajos: see room 3. on ground floor), and also SEBOK Sandor, head of the glass section.
 - 45. Office used by a repair team similar to that in room 26 on the ground floor, except that it dealt with breakdowns in the glass components of pumping apparatus. Four men were employed here and were constantly having to attend to the 30 35 pumps in the factory.
 - 46. Section for manufacturing glass. 15 16 men were employed here, under SEBOK. 25X1

- 8 -

SECHET

47. W.C.

25X1

- 48. Design improvement research section (FEJLESZTESI OSZTALY KISERLETI SZOBA) headed by DEAK, Miklos, with three assistants, all qualified engineers: SZABO Laszlo, EGERSZEGI, Lajos, POLCZOS (Tibor?).
- 49. Corridor.
- 50. Rest-room for the research staff in room 48.
- 51. Office of DEAK Miklos.
- 52. Board-room or consultation room.

SECOND FLOOR

The second floor of the factory is devoted to the manufacture of small-size valves e.g. TUNGSRAM types OT 100, OT 400 and OS 125. There were about 18 people employed on this floor.

- 1. A section wired off from the rest of the room and used for measuring the electrical capacity of the valves produced. Three men worked here.
- 2. Bench where the plug-head was fixed to the glass body of the valves.
- 3. A line of 5 vacuum-pumps.
- 4. Office used by the heads of this department: GUBICS Janos and (Dr)
- 5. Room used by the glass worker, SEBOK Geza, (brother of SEBOK Sandor in room 44 on the first floor). A workman, not a technologist.
- 6. Room housing a pre-pumping unit, used to test the valves for leaks before final exhaustion.
- 7. Workshop for assembling the valves.
- 8. Room used for the chemical cleansing of small components (CIRKONTZALAS).
- 9. Workshop for the manufacture of components. Two people worked here.

 GROUND FLOOR (Other buildings)
- A. 1. General stores.
 - 2. Office of the stores manager, KALMAR Istvan.

25X1

3. Office of the "Political Representative" appointed by the AVH.

This official was a woman KOVESDI, Jozsefne (nee BERCZI Zsuzsanna)

Her tasks included, inter alia, that of checking to see that hold-ups in production were not due to "sabotage". For this purpose

SEGNET

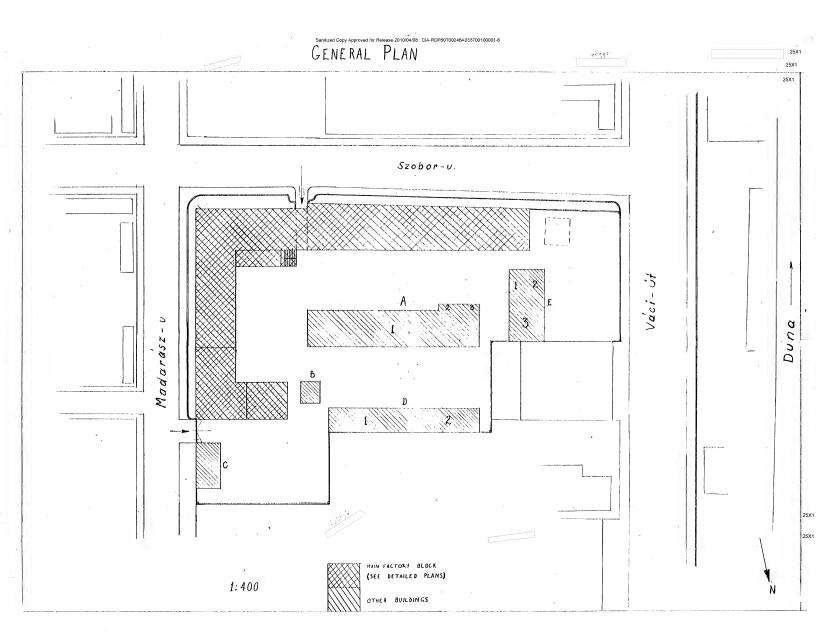
25X1

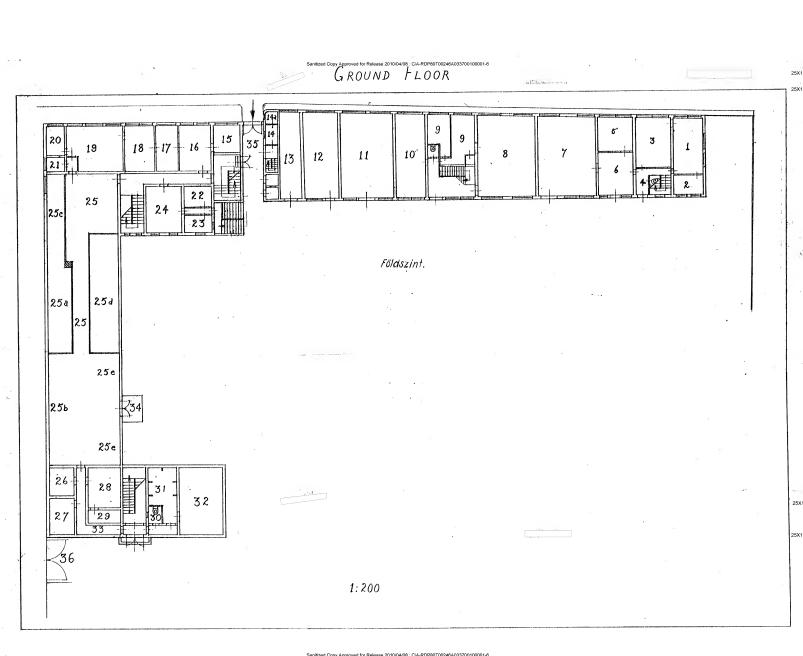
9

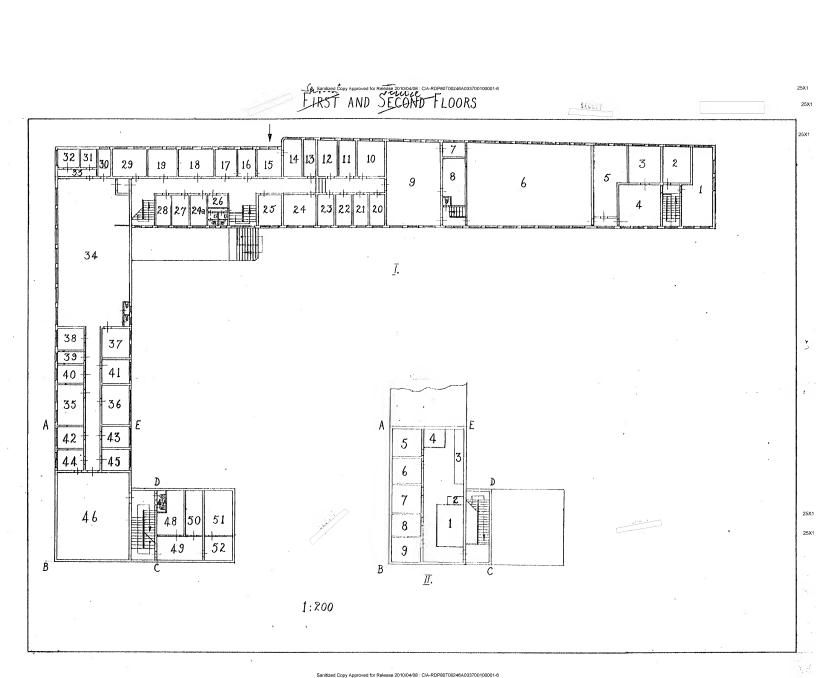
she had trusted informants amongst the workers.

- B. Store room for gas cylinders (oxygen, hydrogen etc.)
- C. Plant for producing liquid air.
- D. 1. Labourers or unskilled workers pool. Here labourers used to wait until required for work.
 - 24 Joiners' room.
- E. 1. Office of DEAK Andras, the official in charge of the breakdown teams in rooms 12 and 26 on the ground floor and room 45 on the first floor.
 - 2. Surgery.
 - 3. Creche.

SECRIT







SECRET

HUNGARY

Scientific/Economic

25X1

25X1

3 kw. and 5 kw. velves produced at

the MAGYAR ADOCSOGYAR Electrical Plant, BUDAPEST

- 1. Attached are fubl-size drawings of the 3 kw, and 5 kw, valves produced at the former Phillips factory in BUDAPEST (now the MAGYAR ADCCSOGYAR Electrical Plant).
- 2. Abbreviations and Hungarian terms used by the draughtsman are as follows:-

SZIVO CSO (UVEG) = Suction tube (glass) (for creation

of vacuum).

CU(E) = Electrolytic copper

Ni = Nickel

Mo = Molybdenum

KEMENY OVEG = Hard glass (FERNIKO glass)

GYURU = Ring

 $O_{\bullet}F_{\bullet}H_{\bullet}C_{\bullet}$ = in a vacuum

Tho. = Thorium

ZIRKONAZVAS = Zirconium?

METHLKUS CSAVAR = Metrical bole

Ni LEMEZ = Nickel plate

Mo RUD = Molybdenum rod

Wo = Tungsten

Tho. 2% Wo. = Tungsten with 2% Thorium

RACS = Plates

KALIK VAGY KVARC GYONGY = Porcelain or quartz insulating blob

TARCSA = Round plate

LESZIVO RESZ (UVEG) = Suction part (glass)

Mo CZEGECS 6 DRB = 6-piece Molybdenum rivet

 $12 \times 3 / x 5 \text{ m/m} = 12 - \text{piece bolt. 3mm. wide, 5mm. long}$

SECRET

25X1

<u>.5 KW</u>

VECTER

descion resa (aveg) CuE \$ 162 Kemery Twee (FERMIKO Twee) LOFHE Où fjûni DFHC CW 52 FERNITS temer 0.7 12 FERNIKO Luma 07 FZ. OFAC Cm \$ 82-Nilones ove. OFHC cup202 _ Keming in of (FERNIXA TONG) Ni lever 0.52. FERNIKO Lewex 075-C.E \$94/83 gyain Mo emus 0262_ Mo dw411252 _ Mo rud \$6 % -THORY, Wof 0.222 _ (gyma) Mo emes 12 -MO \$ 0.42 Einkmorry (ross) OFHC Cup84/79 " Mo comes 12 (toened)

25X1

25X1

Sanitized Copy Approved for Release 2010/04/08 : CIA-RDP80T00246A033700100001-6

3 KW seeder

Calfo Z

Farnits 2-12

Mi 45-Z

Mi 42-Z

Called fing of Z gains

OFH C Can Hally Z

No & 22/21-Z

Done Can & 5-1/2

40-32-Z TH 27/2 No

40-32-Z TH 27/2 No

25X1

25X1

25X1

25X1

25X1

Sanitized Conv Approved for Release 2010/04/08 : CIA-RDR80T002464033700100001